

IN THE CLAIMS:

(A marked-up version of the amended claims is attached to this Amendment.)

Amend Claim 3 as follows:

a 4
3. (Amended) The press according to claim 2, wherein connections and dimensions of the planetary gear system are uniform within the press production series and are attachable to uniform press bodies.

Amend Claim 5 as follows:

a 5
5. (Amended) A press production series with presses, comprising
a machine frame;
a ram for each of the presses guided in a journalled manner and disposed for attachment of a first tool component;
a ram drive positioned on the machine frame and arranged to preset a path-time trace of each ram, the ram drive comprising at least one electric motor and at least one eccentric shaft connected to one another via a drive; and
a table positioned opposite to each ram on the machine body and disposed for attachment of a second tool component, wherein the drive has an offset drive specific to the various presses of the press production series for realization of different stroke speeds
in which the presses vary only in the configuration of the ram drive.

REMARKS

The objection to the drawings is deemed addressed by the above amendments to pages 4 and 6 of the Specification, as well as the proposed

changes to Fig. 1 to add numerals 33 and 34. In addition, applicants propose to change the numerals in Figs. 3 and 4 as well as their corresponding description at page 6 of the Specification, in view of the fact that numeral 16 is used to describe a shaft 16 for the sun gear 36, and numeral 17 is used to describe the driven shaft 17 at page 5 of the Specification.

The rejection of Claims 1-5 under 35 USC § 112, ¶ 2, is traversed, and reconsideration is requested.

With regard to the rejection of Claim 3, applicants submit that there is no indefiniteness merely because the word “the” is used. One of ordinary skill in the art would have clearly understood the metes and bounds of their invention. Nevertheless, a non-limiting change has been made to Claim 3 to eliminate this issue altogether.

Similar comments are applicable with regard to Claim 5. In any event, the rejection of that claim is deemed moot in light of the above amendments thereto.

Applicants totally disagree with regard to the rejection of Claims 1 and 5 on the grounds set forth at page 3 of the Office Action. Even if it were true that a feature was inferred in the claims, such an inference would not mean that the claims are indefinite to one of ordinary skill in the art. To the extent that the Examiner deems a feature not positively recited, he is, of course, free to reject the claim over the available prior art, if such prior art exists. In light of the untenable rejection of the claims under Section 103 as discussed below, applicants submit that their claims are appropriate in scope and sufficiently clear to enable one of ordinary skill to discern the metes and bounds of the invention.

The rejection of Claims 1-5 as being unpatentable over Hart in view of Telkamp et al. under 35 USC § 103(a) is traversed, and reconsideration is requested. The Office Action does not set forth a *prima facie* case of obviousness based upon substantial record evidence. Instead, the rejection is based upon impermissible hindsight reconstruction.

Applicants certainly agree that Hart does not disclose essential features of the present invention, including an offset drive specific to various presses of the press production series for realization of different stroke speeds. Nor does it teach, as the Examiner candidly admits, a ram drive presetting a path-time trace and having the same connections and dimensions of the planetary gear system uniform with the production series.

To overcome the acknowledged differences between Claims 1-5 and the Hart planetary transmission system, the Examiner relies upon the Telkamp et al. tool drive apparatus which, according to the Office Action, constitutes a series of press machines each of which has different cam disks for drives in different speeds. Applicants believe that this assertion evidences, in addition to impermissible hindsight, a fundamental misunderstanding of their invention.

On one hand, the present invention, as set forth in Claims 1-5, allows the standardization of presses in a press production series so that only the ram drives need to be changed through the use of different gear systems having uniform connecting dimensions within that press production series. Specifically, they can be implemented as planetary gears with uniform connecting dimensions. Consequently, uniform press bodies and a uniform main transmission gear with a constant ratio and a constant distance between axes can be utilized. In addition, it is now possible with the present invention to

employ uniform clutch-brake combinations for presses of one press production series. In order to do so, applicants recognize the necessity of providing that all the presses in the series do not exceed a given maximum eccentric torque. That is, the torques must be kept below defined limits. Thus, applicants have achieved parts uniformity even in presses with different nominal stroke rate ranges. In other words, applicants have been able to modularize the press to the greatest extent possible with this approach.

On the other hand, the Telkamp et al. tool drive apparatus is one which uses a drive unit having a rotatable main shaft that can carry up to six cam disks associatable with the press. The Telkamp et al. approach was not at all concerned with a uniform press drive concept, but rather with a device or tool drive that would process more than one area on a leadframe strip in the same press cycle. More specifically, the use of the six cams enabled tools to be placed closer together so as to shorten the leadframe strip processing line so as to reduce the production floor space. In doing so, Telkamp et al. teaches the provision of a drive apparatus in which the drive unit operates more than one press and which uses only the force to drive the tool that has the heaviest process. This is far different from the present invention in which each press has its own associated ram drive which can require various path-time traces and stroke speeds. It does not appear that Telkamp et al. were even remotely concerned with the changeability of gear ratios to attain various path-time traces and stroke speeds in different drive configurations.

Accordingly, reconsideration of the rejection under § 103(a) is earnestly solicited. Early and favorable action on this application is requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #852/49038).

Respectfully submitted,

July 24, 2002

Vernant J. McKeown
For James F. McKeown By NO. 39,004
Registration No. 25,406

CROWELL & MORING, LLP
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844

JFM/acd
80408.027

VERSION WITH MARKINGS TO SHOW CHANGES

IN THE SPECIFICATION:

Page 4, lines 13-20:

Figure 1 illustrates a modified toggle press 1 which is used, for example, for massive forming. A ram 3 is journalled vertically movable in a machine frame 2. A ram guide 4, realized as a linear guide, serves to guide in the machine frame 2. A table [5] is arranged below the ram 3 which is journalled on the machine frame 2 or realized from same, and the table accepts a lower tool. The ram 3 is disposed to accept an upper tool, all in a generally known manner.

Page 6, lines 5-10:

The connecting rod 22 is connected with the machine body 2 and the ram 3 via links 31, 32. The link 31 extends into the upper opening formed between the walls 25b, 25c of the connecting rod [21], and is rotatably journalled here by a pivot pin 33. It is journalled with the machine frame 2 with a pivot pin 34 on its opposite upper end.

Page 6, lines 11-24:

The first press embodiment with the gear system according to Figure 3 has a lower stroke speed and a greater nominal force than the second press embodiment with the gear system according to Figure 4. The gear systems only differentiate themselves in regard to the planet gears [17a, 17b, 17c] 35a, 35b, 35c, the planet bearer [17] 35, and the sun gear [16] 36. All of the assembly points and external dimensions of the predetermined elements of the gear system, such as, for example, the toothed belt 15, the electric motor 11, and the

ring gear 14, as well as the rotational axes of the sun gear 16 and the output of the electric motor 11, correspond to each other in both embodiments. Therefore, the stroke speed within the press production series can be adjusted to concrete requirements merely by modification of the planet gears [17a, 17b, 17c] 35a, 35b, 35c (and the planet bearer [17] 35), as well as the sun gear [16] 36.

IN THE CLAIMS:

3. (Amended) The press according to claim 2, wherein [the] connections and dimensions of the planetary gear system are uniform within the press production series and are attachable to uniform press bodies.

5. (Amended) A press production series with presses, comprising
a machine frame;
a ram for each of the presses guided in a journalled manner and disposed for attachment of a first tool component;

a ram drive positioned on the machine frame and [presets] arranged to preset a path-time trace of [the] each ram [and comprises] , the ram drive comprising at least one electric motor and at least one eccentric shaft connected to one another via a drive; and

a table positioned opposite to [the] each ram on the machine body and [is] disposed for attachment of a second tool component, wherein the drive has an offset drive specific to the various presses of the press production series for realization of different stroke speeds

in which the presses vary only in the configuration of the ram drive.